

Basic 80



the 43 teleprinter



HOW TO OPERATE

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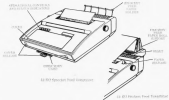
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IBM TELETYPE COMMUNICATOR

Chapter 1 through 21

INTRODUCTION

The 42 Basic 80-Teleprinter provides character-to-character, receiver-only, limited operations. Data teleprinter is normally provided at 10 characters per second (cps) (200 wpm).

The 42 80-Teleprinter may be connected to an external communications device or contain an internal data set and thus be connected with a telephone. A permanent connection via private line may also be used in the arrangement with an external device. Calls may be answered and disconnected automatically over the telephone line.

In some arrangements the 42 80-Teleprinter may be connected directly to a computer or other data terminal which will control data mode transfer.

The reverse side of directory card, for a record of its output, reception that provides data programs at 10 characters per second (cps) (200 wpm) or any other programs to standard operating stations.

Messages are printed with up to 120 characters per line (40 columns equipped for 22 inch wide spaced line paper). Specialized line paper may be fed from a supply box or standard automatic one, be placed in a paper holder that clips on the rear of the teleprinter.

The internal feed mechanism, messages up to 40 characters per line are printed on 8 1/2 inch wide roll-type paper. The roll is held in a support attached to the rear of the teleprinter.

The ribbon is part of a cartridge that can be readily replaced with the cover open. Replacement ribbon cartridges can be obtained from Field and Communications (see Page 4-1). An order form is included with each new ribbon.

A printed directory card holder under the front of the teleprinter may be used to write in frequently used telephone numbers and other key information (see Page 21).

Note: The paper used with the specialized feed teleprinter is a low 22 inch wide specialized feed. See Page 4 for ordering information.

CONNECTING AN EXTERNAL TELEPHONE

Before using an external cord and handset make sure that no other external telephones are connected to the unit before setting up power.

EXTERNAL TELEPHONE (To Be Used)



When power is turned on, the print head will appear fully left, the speaker will perform one line feed and the **TRIM SELECT** lamp on the operator console will light, provided no other conditions exist.

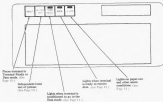
OPERATOR CONTROLS AND STATUS SIGNALS

TRIM SELECT



When the power is turned on, the print head will appear fully left, the speaker will perform one line feed and the **TRIM SELECT** lamp on the operator console will light, provided no other conditions exist.

- The seal location of the operational control and status indicators should be verified before the ATIS Deluge is opened.



■ **Establishing connection and monitoring:** In the Data Mode automatically is handled under the control of the communications device (terminal) over the attached network or over private lines. In some arrangements terminals are directly connected to the Global Terminal or computer. Use of external devices should be specified locally since many variations are possible, i.e. modifications of modes or no phone, if present, inclusion, auto-answer keys, etc.

■ The procedures as shown below, that normally apply to operations of the controls of the terminal, describe as follows:

■ **To Condition Terminal to Transfer to Data Mode:**

a. Place terminal in Terminal Ready mode:

1. Turn on or reset (see Page 11).
2. Clear any alarm condition (paper-out, cover-open).
3. Depress **STANBY** key.

■ **Transfer from Terminal Ready to Data Mode.**

The Data key light under control of the external device, if present, or station station.

Note: Data can be received on-line only when the DATA key is lit.

■ **Transfer from Data mode to Terminal Ready Mode.**

1. The **STANBY** key is depressed.
2. Paper line break are received after a paper-out condition (printed feed only).
3. Printed text is initiated.
4. Telephone call is disconnected for any reason such as received RPT. See the back side of the directory card for any exception of the feature, System 6000.

PRINTER OPERATION

4 Printer

The printer prints all received signals after the message when the END is key-actd.

4 Signal Bell

The signal bell sounds when characters are printed when characters remain on the right margin, i.e. margin on the left is 17 (16) bits. Additionally, it will sound when two spaces are required, when a full character is received, or when a page has completed is printed. It also rings when other error is encountered.



4 Margin Setting

When power is turned on, the left and right printing margins are set to 1 and 163 bit characters. During 1 minute no change from these margins is allowed. After this time, the left margin can be changed when margin manual key function used.

4 Indicator Lamp

The green pointing lamp of the printer is controlled by the error hand motion at the end of indicator code after a 1 second delay. The green lamp comes back when printing resumes or when suspension character is received.

LAST PRINTED CHARACTER
ON THE PREVIOUS PAGE

CENTER OF NEXT PRINTED CHARACTER

PRINT HEAD MOVABLE AFTER 1 SECOND
(Based on 100 and 100, Double Line Character Interval)

POSITION OF FIRST CHARACTER
BEFORE 1 SECOND DELAY

PRINT INDICATOR BELL



TELETYPE WITH ROLLER MAINTENANCE

It is your responsibility to keep the teleprinter equipped with sufficient paper and ribbon. In addition, an adequate supply of these items should be ordered and kept in storage.

Ribbon

Only cartridges with ribbon designated for use with 43 Teleprinters should be used. Teletype part number 4-430005.

The cartridge with ribbon can be ordered from Teletype Corporation, 1910 Taylor Avenue, Skokie, IL 60076. An order form included with each new cartridge may be used for this purpose or established ordering procedures may be followed for large orders.

The ribbon should be replaced whenever it becomes faded or print density becomes light. After the first few ribbons, replacement ribbons should produce three million or more legible characters of printing.

Paper

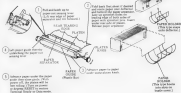
Paper for the 43 Speeded Feed Teleprinter must be 17 inch wide spaced feed. The weight and up to 40-1000 multiply forms may be used. Paper frequently used with the teleprinter is single-ply and has 8-1/2 inch holes to provide 14 inch x 9-1/8 inch copy when the sprockets are removed. This single-ply 16 pound basis paper may be obtained from the supplier listed below or other supplier.

Waters Business Forms Inc.
204 W. Grand Ave.
Chicago, IL 60602
Tel. No. 5-4879

Engel Products Co.
228 W. Page
Skokie, IL 60076
Tel. No. 1-488-1227

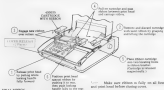
Paper for the 43 Station Feed Teleprinter should be standard 8-1/2 inch wide, single-ply paper furnished in 8 inch maximum diameter rolls with a 1 inch diameter spooler hole.

*Thermal paper is shown with the coated paper measured. If a paper-wet condition occurs (e.g., after heavy liquid) while data is being recorded, wait until 25-30% temp. goes off. If 0.01-0.4 temp. is 90 and no data is being recorded, run over the printed solution without obscuring the cell.



FINAL ASSEMBLY

- Install ribbon as shown after opening the cover and manually reinserting the print head with the power button off.



FINAL ASSEMBLY

Reassembly:



TERM READY KEY



Key lights in Terminal Ready mode.

- In the Terminal Ready mode, the subscription will be completed to transfer to the Data mode (Page 71.)
- The Terminal Ready mode is normally entered when power is turned on or the RESET key is depressed following paper replacement.

NOTE: — The phone line system the TERMINAL key lights only when the terminal is ready but the handset is unable to transfer to not ready.

- With DATA or ALLINK keys in the TERMINAL key mode on.

- The Terminal Ready mode can also be entered:

- Automatically — following calls to the Data mode, (see Page 17 for Data mode.)
- Automatically — following ringing RAILA lamp when a call is not completed (DATA lamp will).
- Manually — depressing the RESET key manually. If depressed during the Data mode the call may disconnect or RAILA lamp may extinguish.
- Manually — depressing and releasing the PULSE IN TEST key.



- The Terminal Ready mode can be interrupted by:

- Closing the cover.
- Pressing local printer test.
- Removing paper.
- Turning off power.
- Using the Data mode, or, receiving a call or automatically.



Key light in Data mode.

• Data can be entered on-line in the Data mode only.

• On some arrangements (without an internal data unit) the DATA key will light automatically following the Terminal Ready mode.

• On other arrangements the Data mode is entered automatically from the Terminal Ready mode.

- Following a received telephone call (remote delivery).
- Under control of some external transmission from a device or when directly connected to a data terminal (any time an incoming telephone). DATA key may light without PRINTER key being lit too.

• The Data mode may be terminated when:

- End of line break are received after paper-out error.
- READY key is operated (from PC).
- The character END DATA key is received.
- Data signals from the remote station are lost.
- The local PRINTER TEST key is operated (from PC).
- A telephone call is disconnected for any reason.
- Power is turned off.

Unless Option 4.05b is installed.

• Functions in operation of Data mode:

- The DATA key may blink indicating a short interruption of data signals (short Data).
- On systems with an internal data unit and a telephone, transfer to the Data mode cannot be completed if the power is turned on after the call was answered.
- On systems with an internal data unit and a telephone, the power normally drops once, followed by a transfer to the Data mode. If the transfer is not completed (data signals not received), the situation will then apply back to telephone calls for 15 seconds.



Key lights when alarm condition exists on any level.

Alarm conditions are:

- Paper-out. ALARM key lights when paper-out condition is sensed. This is an advance warning that paper feeding has been interrupted. If Data mode is terminated and after clearing the feed, paper will be out of the paper feed. If Data mode was terminated, ALARM lamp will remain on after paper is replaced.
- Cover open (printing is disturbed).
- Paper jam (Page 114).

Note: Alarm condition key flashing condition.

Alarm key flashes when:

- Teletester is placed in a Lockback mode by special character sequences received via testing (Page 114).

Note 1: In some systems the ALARM key may be flashing during normal operation—triggered by printing.

Note 2: Flashing ALARM key should be cleared after extended periods when otherwise instructed.

Alarm can be cleared by:

- Replacing paper. Presses RESET to restore normal mode if Data mode is terminated by paper-out.
- Clearing cover with DATA key or releasing PRINTER TEST key.
- Replacing MIMII key.

Flashing ALARM key can be cleared by:

- Pressing special character sequences (Page 114).
- Replacing MIMII key or turning off power.



Some telephones may be connected in the line by a wired telephone call. A telephone may be present.

■ If a telephone is directly connected to a telephone with an internal modem, it will stay active when a call is received. The telephone may be used to originate and answer calls in the Talk mode only.

- With power off.
- When in the Talk mode.

■ Calls normally will be disconnected when:

- The Talk mode is terminated (Page 17) and a directly connected telephone is on hook.
- The handset is placed on hook in the Talk mode.

■ Minimum phone when off-hook may interfere with proper data operation of call disconnect.

- The special escape sequences listed below are transmitted to the AT Telephone by preceding the character immediately following the escape character (characters following 000 will not print.)

```

ESC L -- ESC lower case L; set left margin.
ESC R -- Set right margin.
ESC A -- Clear left and right margin.
ESC M -- Release left and right margin.
ESC W -- Release carriage for left margin with line feed.
ESC Q -- Digital Loopback*
ESC X -- Clear Loopback
    
```

* Used for testing of the voice system for correct answer purposes. (See Page 113.)

The substitute character ■ is printed in place of E-maps:

1. A control-E character is received.
2. A character with an odd number of bits in its code is received as a "parity error".*

* Due to inability of otherwise used bit record, if an option for double printing of the substitute character (the ■) as a parity error, Option 007b.

WITH TRAVEL COCHES

Travels that is encountered with the terminal should be reported as locally specified. A number is to be added in case of travels that is related to the down-keep and pulled by the machine.


If it can be determined that the trouble is in the remote equipment, the attended at the location or trouble should follow local procedures for that area.

The following table of analysis questions is arranged based on the content of a trouble log.

- Local equipment.
- Condition of the remote location.
- Addressing errors presented in address of trouble out of Analysis Question results.

Before reporting a trouble, follow the trouble log. (See Table 1) on the table always starting with Question No. 1 and then proceed according to the "Yes" or "No" direction on the following pages.



ANALYSIS QUESTION	YES	NO
<p>1. Are one of the three status indicators (ops SET FROM READY, DATA, ALARM) (Power switch on.)</p>	Go to 2.	<p>1. Check that power used is correct.</p> <p>2. Check source of power. (Wall switch, other equipment On, correct location, etc.)</p> <p>3. Report as local trouble to equipment.</p>
<p>2. Does test message print properly while the PRINTER TEST key is depressed?</p>	Go to 3.	Go to 3.
<p>3. Is red lamp on power supply (in 1/2 module through slot in transfer slot) also from the left.</p> 	Report as local trouble in printer.	Report as local trouble in power supply.

ANALYSIS QUESTIONS	YES	NO
4. Does the TV keep light following manual call in Terminal Ready mode?	Go to 8.	<ol style="list-style-type: none"> 1. Remote station must also go to Data mode. 2. Check that oscillator cord is connected to first jack. 3. If key does not flash or light, report as trouble to integrator.
5. Are data messages properly received in the Data mode?	Go to 8.	<ol style="list-style-type: none"> 1. Check for proper operating speed for call station. 2. Report as trouble to integrator unless trouble occurs with calls and other station.
6. Is trouble present but not isolated by Questions 1 through 5?	Report what trouble as specified in local instructions.	



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